



**Figure S1.** Luminance contrast, binocular difference image contrast, and disparity contrast in natural scenes. **A** Distribution of luminance contrast for different spatial integration areas (colors). Larger luminance contrasts are more likely when computed with larger spatial integration areas (see Methods) **B** Distribution of binocular difference image contrast. Binocular difference image contrast is the contrast of the point-wise difference between the right- and left-eye windowed contrast images (see Methods). Low binocular difference image contrasts are associated with low disparity contrasts (see Fig. 10). **C** Distribution of disparity contrasts. Disparity contrast is approximately distributed as a power law, although the approximation breaks down at very small and large contrasts. The y-axis spans three orders of magnitude. Note that because the database of natural scenes from which these statistics are calculated contain no objects closer than 3.0m, and because the disparity associated with a given depth decreases with the square of distance, these distributions probably underestimate the frequency of high disparity contrasts.